AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning at page 12, line 11, with the following rewritten paragraph:

--Bridge leg portions 11 are provided on the base table 6 across the wafer stage 1. Mounted on the bridge leg portions 11 is a wafer camera 10 which picks up the images of a probe card holder 9 where a probe card 8 is placed and a semiconductor device as an inspection target. Wafer camera 10 has an image processing means that performs image processing on the images picked up by the wafer camera 10. A probe camera 12 which picks up the images of probe needles is mounted on the Y stage 4. A control section 25 computes positions of the inspection target and the probe card based on image information acquired by the image processing means and controls the X stage 5, the Y stage 4 and the rotary unit 2 based on results of that computation. The above illustrates the general structure of the inspection apparatus.--

Please replace the paragraph beginning at page 12, line 19, with the following rewritten paragraph:

--Individual components of the inspection apparatus will be discussed next. Fig. 3 shows the portions of the X stage 5 and the Y stage 4 in detail. A linear scale 14 of high resolution which is used in feedback control is arranged in the moving direction of the X stage 5 or in parallel to the X direction. The read head of the linear scale 14 is directly

attached to the base table 6 made of granite. A pair of motors 15 and a pair of guides are arranged evenly with respect to the front-to-rear center of the X stage 5. The front-to-rear center of the X stage 5 is the center of probing, and as the linear scale and the read head are arranged directly under probing and the motors as drive sources are arranged evenly, the influence of the thermal expansion of the individual components is suppressed, thereby restraining the deformation of the stage with respect to the moment load, such as pitching or yawing, as much as possible. Further, the thermal expansion coefficients of the base table 6, the cameras 10 and 12 and the probe card holder 9 are set identical, the stability with respect to a change in temperature is improved. Large, high-precision crossroller guides are used as the guides that are important in securing the operational precision of the stage and are attached directly to the base table 6. To meet a demand for high precision, an air bearing system called air slide is often selected because of its low slide resistance and linearity easily ensured. Because an eccentric load corresponding to an 8-inch wafer is applied, a high mechanical rigidity is demanded, and the air slide that matches the mechanical rigidity becomes large and expensive, however, crossroller type linear guiding is selected in the embodiment. As the parallelism of the base table 6 is finished to 1 μm or so and the crossroller guides are attached directly to the finished surface, the strength with respect to vibration,

eccentric load or the like is increased. Further, the height from the base table 6 to the top surface of the stage can be suppressed to about 80 mm, in which point the structure is advantageous with respect to thermal deformation, pitching, yawing and so forth. Taking those measures, it is sufficiently possible to position the XY stage according to the embodiment at the level of 0.01 μm. Further, as the guide portion, unlike the air slide, has the adequate viscoelasticity, it is possible to make the stage still on the nm order of the linear scale resolution or lower. For the Y stage 4, like the X stage 5, a linear scale is arranged directly under the center of probing and linear motors 16 and guides are arranged evenly.--

Please replace the paragraph beginning at page 15, line 11, with the following rewritten paragraph:

--Specifically, the elevation unit 3 has a fixed frame which is driven up and down by a stepping motor 13 and a movable frame, both frames being guided by the crossroller guides 19 in such a manner as to be movable up and down with respect to the fixed frame. A cylinder is fixed to the fixed frame and its piston rod pushes the movable frame upward. As the contact bar fixed to the movable frame abuts on the load sensor 18 when the movable frame moves upward, the load sensor 18 detects a load applied by the contact bar. A control section controls pressing force by the cylinder based on the load detected by the load sensor 18. The load sensor 18 restricts upward movement of the

contact bar, not downward movement of the contact bar, when the contact bar abuts on the load sensor 18. For example, the load sensor 18 is a load cell provided with its load detecting direction facing downward so that as the contact bar of the movable frame to which upward pressing force is applied abuts on the load cell, the pressing force is detected by the load cell, and when the movable frame moves downward, the contact bar moves away from the load sensor 18 so that the downward movement of the contact bar and thus the downward movement of the movable frame are not restricted. In case where, for example, the weight of the portion supported by the cylinder, including the wafer stage 1 and the movable frame, is 52 N, therefore, if the cylinder-originated thrust force (the pressing force of the piston rod to press the wafer stage 1 and the movable frame or the like upward) is adjusted to, for example, 52.5 N, upward force of 0.5 N is applied to the movable frame and the contact bar abuts on the load sensor 18 with the force of 0.5 N. Under this situation, the movable frame and the wafer stage 1 stop and become stable with respect to the fixed frame. If the fixed frame is moved upward by the stepping motor, the probe card 8 contacts a wafer on the wafer stage 1 and the force of over 0.5 N is applied to the wafer from the probe card 8, the contact bar moves away from the load sensor 18 and the movable frame escapes downward relatively to the fixed frame moving upward. As a result, the

movable frame and thus the wafer stage 1 stop and no force of over 0.5 N acts on the wafer.--

Please replace the paragraph beginning at page 17, line 9, with the following rewritten paragraph:

--It is possible to attach a camera 20, mounted on the [[XYZ]] XY stage that can be fed by a small step, to the mount table for the probe card holder 9 and observe the contact state of the electrodes of the inspection target with the probe via a through hole or glass provided in the center portion of the probe card 8 (e.g., a finger read type probe card whose portions corresponding to the probe needles are formed on a polyimide sheet by photolithography or a finger read type probe card whose probe needles are formed by electroforming with glass ceramics as the base material). The provision of the camera 20 and the through hole formed in the probe can ensure reliable visual grasping of the contact state. In case of extremely small electrode pitches of 30 μm or less, particularly, those measures, used together with the scheme of electrically checking the positional relationship between the probe and the electrodes, can significantly shorten the checking work at the time of mounting a novel probe developed or [[a]] at the time of replacing the probe card with a new one.--

Please replace the paragraph beginning at page 18, line 16, with the following rewritten paragraph:

--First, a probe card 8 is placed in the probe card holder 9, and adjustment of the parallelism of the probe card 8 with respect to the wafer stage 1 is performed. [[In]] For example, the adjustment is carried out by measuring the heights of all the pins of the probe by a laser displacement meter attached to the XY stage and computing the parallelism. Based on the results, the height of the probe card 8 is corrected. Another scheme is to compute the inclination from the image provided by a probe-needle identifying camera and make correction. The correction is carried out using micrometers at the three locations which are provided on the probe card holder 9 and operate in up and down directions and a micrometer which operates in the θ direction.--

Please replace the paragraph beginning at page 19, line 2, with the following rewritten paragraph:

--After adjustment of the parallelism, the probe needles are recognized. In consideration of the precision of image recognition, [[It]] it is preferable that the recognition points be eight points per IC chip, one on each of the right and left ends of each side, or four points per IC chip, one on each side.--

Please replace the paragraph beginning at page 21, line 13, with the following rewritten paragraph:

--As the elevation unit 3 has elevation unit guides, slide resistance (static friction and dynamic friction) is

generated, so that the load to be detected changes in accordance with the acceleration. It is therefore necessary to set the contact detection in consideration of such a phenomenon. In making this setting, the amount of displacement (point) and the load value by which the static friction was changed to the dynamic friction and the upward stage movement started with hardly any influence on the load detecting means were clarified by studying the relationship between the displacement and the load when the elevation unit 3 was moved upward and checking the reproducibility. There are empirical results showing that in the speed range of 0 to 50 μm/sec with an upward movement of 100 μm, for example, the load value becomes almost constant in the area where the amount of upward movement of the elevation unit 3 is 60 μm or greater and the [[then]] load value is 10 g for the mean value of $+3\sigma$. Based on the results, reliable contact detection can be achieved under the conditions that the contact detection load is set to 12g in the first probing and the load detecting means is reset when the point is distant by 60 μm or greater from the distal end of the probe.--